

ANIMAL GENETICS AND BREEDING
Course Structure – at a Glance

CODE	COURSE TITLE	CREDITS
AGB 601	ANIMAL CYTOGENETICS AND IMMUNOGENETICS	2+1
AGB 602	MOLECULAR GENETICS IN ANIMAL BREEDING	2+1
AGB 603	POPULATION AND QUANTITATIVE GENETICS IN ANIMAL BREEDING	2+1
AGB 604	SELECTION METHODS AND BREEDING SYSTEMS	3+1
AGB 605	BIOMETRICAL TECHNIQUES IN ANIMAL BREEDING	3+1
AGB 606	CONSERVATION OF ANIMAL GENETIC RESOURCES	2+0
AGB 607	CATTLE AND BUFFALO BREEDING	2+1
AGB 608	SMALL FARM ANIMAL BREEDING (SHEEP, GOAT, SWINE AND RABBIT)	2+0
AGB 609	POULTRY BREEDING	2+1
AGB 610	LABORATORY ANIMAL BREEDING	1+0
AGB 691	MASTER'S SEMINAR	1+0
AGB 699	MASTER'S RESEARCH	20
AGB 701	RECENT ADVANCES IN ANIMAL GENETICS	2+0
AGB 702	RECENT TRENDS IN ANIMAL BREEDING	2+0
AGB 703	ADVANCES IN BIOMETRICAL GENETICS	2+1
AGB 704	ADVANCES IN SELECTION METHODOLOGY	2+1
AGB 705	BIOINFORMATICS IN ANIMAL GENETICS AND BREEDING	2+0
AGB 706	ADVANCES IN MOLECULAR CYTOGENETICS	2+0
AGB 707	UTILISATION OF NON-ADDITIVE GENETIC VARIANCE IN FARM ANIMALS	2+1
AGB 791	DOCTORAL SEMINAR I	1+0
AGB 792	DOCTORAL SEMINAR II	1+0
AGB 799	DOCTORAL RESEARCH	45

VETERINARY ANATOMY AND HISTOLOGY

Course Structure – at a Glance

CODE	COURSE TITLE	CREDITS
VAN 601	COMPARATIVE OSTEOLOGY AND ARTHROLOGY	1+2
VAN 602	COMPARATIVE SPLANCHNOLOGY	2+2
VAN 603	MYOLOGY, ANGIOLOGY, NEUROLOGY AND AESTHESIOLOGY OF OX	1+3
VAN 604	GROSS ANATOMICAL TECHNIQUES	0+2
VAN 605	THEORY AND PRACTICE OF HISTOLOGICAL AND HISTOCHEMICAL TECHNIQUES	1+2
VAN 606	GENERAL HISTOLOGY AND ULTRASTRUCTURE	3+1
VAN 607	SYSTEMIC HISTOLOGY AND ULTRASTRUCTURE	3+1
VAN 608	DEVELOPMENTAL ANATOMY	3+1
VAN 691	MASTER'S SEMINAR	1+0
VAN 699	MASTER'S RESEARCH	20
VAN 701	MYOLOGY, ANGIOLOGY, NEUROLOGY AND AESTHESIOLOGY OF EQUINE, CANINE AND PORCINE	0+3
VAN 702	PRINCIPLES AND APPLICATIONS OF BIOMECHANICS	2+0
VAN 703	AVIAN ANATOMY	1+2
VAN 704	NEUROANATOMY	3+1
VAN 705	ENDOCRINE ANATOMY	2+1
VAN 706	THEORY AND APPLICATIONS OF ELECTRON MICROSCOPE	2+1
VAN 707	HISTOENZYMOLOGY AND IMMUNOCYTOCHEMISTRY	2+1
VAN 708	APPLIED EMBRYOLOGY AND TERATOLOGY	1+2
VAN 709	FUNCTIONAL VETERINARY ANATOMY	2+0
VAN 710	GROSS ANATOMY OF LABORATORY ANIMALS	1+1
VAN 790	SPECIAL PROBLEM	0+2
VAN 791	DOCTORAL SEMINAR I	1+0
VAN 792	DOCTORAL SEMINAR II	1+0
VAN 799	DOCTORAL RESEARCH	45

PLANT MOLECULAR BIOLOGY AND BIOTECHNOLOGY
Course Structure – at a Glance

CODE	COURSE TITLE	CREDITS
MBB 501**	PRINCIPLES OF BIOTECHNOLOGY	2+1
MBB 502**	FUNDAMENTALS OF MOLECULAR BIOLOGY	3+0
MBB 503**	MOLECULAR CELL BIOLOGY	3+0
MBB 504	PLANT TISSUE CULTURE & GENETIC TRANSFORMATION	1+2
MBB 505**	TECHNIQUES IN MOLECULAR BIOLOGY I	0+3
MBB 506	MICROBIAL/ INDUSTRIAL BIOTECHNOLOGY	2+1
MBB 507	MOLECULAR BREEDING	2+0
MBB 508	GENOMICS & PROTEOMICS	2+0
MBB 509	TECHNIQUES IN MOLECULAR BIOLOGY II	0+3
MBB 510*	BIOSAFETY, IPR AND BIOETHICS	2+0
MBB 511*	ANIMAL BIOTECHNOLOGY	3+0
MBB 512*	IMMUNOLOGY AND MOLECULAR DIAGNOSTICS	2+1
MBB 513*	NANO-BIOTECHNOLOGY	3+0
MBB 551*	PRINCIPLES OF GENETICS	3+1
MBB 552*	GENERAL BIOCHEMISTRY	3+0
MBB 553*, **	BIOSTATISTICS AND COMPUTERS	2+1
MBB 554*	PRINCIPLES OF MICROBIOLOGY	3+1
MBB 555	INTRODUCTION TO BIOINFORMATICS	2+1
MBB 556	ENVIRONMENTAL BIOTECHNOLOGY	3+0
MBB 591	MASTER'S SEMINAR	1+0
MBB 599	MASTER'S RESEARCH	20
MBB 601	ADVANCES IN PLANT MOLECULAR BIOLOGY	3+0
MBB 602	ADVANCES IN GENETIC ENGINEERING	3+0
MBB 603	ADVANCES IN MICROBIAL BIOTECHNOLOGY	3+0
MBB 604	ADVANCES IN CROP BIOTECHNOLOGY	3+0
MBB 605	ADVANCES IN FUNCTIONAL GENOMICS AND PROTEOMICS	2+0
MBB 606	COMMERCIAL PLANT TISSUE CULTURE	2+0
MBB 607	ADVANCES IN ANIMAL BIOTECHNOLOGY	2+0
MBB 691	DOCTORAL SEMINAR I	1+0
MBB 692	DOCTORAL SEMINAR II	1+0
MBB 699	DOCTORAL RESEARCH	45

*May be taken as minor/supporting courses; **Compulsory for M.Sc. Programme

ANIMAL REPRODUCTION, GYNAECOLOGY & OBSTETRICS
Course Structure – at a Glance

CODE	COURSE TITLE	CREDITS
VOG 601	GENERAL GYNAECOLOGY	3+1
VOG 602	FEMALE INFERTILITY	3+1
VOG 603	VETERINARY OBSTETRICS	2+2
VOG 604	ANDROLOGY & MALE INFERTILITY	3+1
VOG 605	SEMEN PRESERVATION AND ARTIFICIAL INSEMINATION	2+1
VOG 606	REPRODUCTIVE BIOTECHNOLOGY	2+1
VOG 607	CLINICAL PRACTICE I	0+3
VOG 608	CLINICAL PRACTICE II	0+3
VOG 691	MASTER'S SEMINAR	1+0
VOG 699	MASTER'S RESEARCH	20
VOG 701	ADVANCES IN GYNAECOLOGY	2+1
VOG 702	ADVANCES IN OBSTETRICS	2+1
VOG 703	ADVANCES IN ANDROLOGY	2+1
VOG 704	ADVANCES IN REPRODUCTIVE BIOTECHNOLOGY	1+1
VOG 705	ADVANCES IN SEMEN PRESERVATION	1+1
VOG 706	CLINICAL PRACTICE I	0+3
VOG 707	CLINICAL PRACTICE II	0+3
VOG 790	SPECIAL PROBLEM	0+2
VOG 791	DOCTORAL SEMINAR I	1+0
VOG 792	DOCTORAL SEMINAR II	1+0
VOG 799	DOCTORAL RESEARCH	45

VETERINARY MICROBIOLOGY
Course Structure – at a Glance

CODE	COURSE TITLE	CREDITS
VMC 601	BACTERIOLOGY – I	3+1
VMC 602	BACTERIOLOGY – II	3+1
VMC 603	VETERINARY MYCOLOGY	1+1
VMC 604	GENERAL VIROLOGY	2+1
VMC 605	SYSTEMATIC ANIMAL VIROLOGY	3+1
VMC 606	PRINCIPLES OF IMMUNOLOGY	2+1
VMC 607	VACCINOLOGY	2+0
VMC 608	DIAGNOSTICS OF INFECTIOUS DISEASES	1+2
VMC 609	TECHNIQUES IN MICROBIOLOGY AND IMMUNOLOGY	0+3
VMC 691	MASTER’S SEMINAR	1+0
VMC 699	MASTER’S RESEARCH	20
VMC 701	ADVANCES IN BACTERIOLOGY	2+1
VMC 702	ADVANCES IN MYCOLOGY	2+1
VMC 703	BACTERIAL GENETICS	2+1
VMC 704	MICROBIAL TOXINS	2+1
VMC 705	MOLECULAR DETERMINANTS OF BACTERIAL PATHOGENESIS	2+1
VMC 706	ADVANCES IN VIROLOGY	2+1
VMC 707	MOLECULAR AND GENETIC ASPECTS OF VIRAL PATHOGENESIS	2+1
VMC 708	STRUCTURE FUNCTION RELATIONSHIP OF DNA AND RNA VIRUSES	3+0
VMC 709	ONCOGENIC VIRUSES	2+0
VMC 710	SLOW VIRAL INFECTIONS AND PRIONS	2+0
VMC 711	MOLECULAR IMMUNOLOGY	2+1
VMC 712	ADVANCES IN CELLULAR IMMUNOLOGY	2+1
VMC 713	CYTOKINES AND IMMUNOMODULATORS	2+0
VMC 714	ADVANCES IN VACCINOLOGY	2+0
VMC 715	ADVANCES IN IMMUNODIAGNOSTICS	1+1
VMC 716	MODERN IMMUNOTECHNOLOGY	1+2
VMC 717	CURRENT TOPICS IN INFECTION AND IMMUNITY	3+0
VMC 718	VETERINARY MICROBIAL BIOTECHNOLOGY	2+1
VMC 790	SPECIAL PROBLEM	0+2
VMC 791	DOCTORAL SEMINAR I	1+0
VMC 792	DOCTORAL SEMINAR II	1+0
VMC 799	DOCTORAL RESEARCH	45

STATISTICS / AGRICULTURAL STATISTICS
Course Structure – at a Glance

1. Service Courses (For M.Sc. and Ph.D. programs of other disciplines)

CODE	COURSE TITLE	CREDITS
STAT 501	MATHEMATICAL METHODS FOR APPLIED SCIENCES	2+0
STAT 511	STATISTICAL METHODS FOR APPLIED SCIENCES	3+1
STAT 512	EXPERIMENTAL DESIGNS	2+1
STAT 513	SAMPLING TECHNIQUES	2+1
STAT 521	APPLIED REGRESSION ANALYSIS	2+1
STAT 531	DATA ANALYSIS USING STATISTICAL PACKAGES	2+1

2. M. Sc. (Statistics / Agricultural Statistics)

STAT 551	MATHEMATICAL METHODS - I	3+0
STAT 552	MATHEMATICAL METHODS - II	2+0
STAT 560	PROBABILITY THEORY	2+0
STAT 561	STATISTICAL METHODS	2+1
STAT 562	STATISTICAL INFERENCE	2+1
STAT 563	MULTIVARIATE ANALYSIS	2+1
STAT 564	DESIGN OF EXPERIMENTS	2+1
STAT 565	SAMPLING TECHNIQUES	2+1
STAT 566	STATISTICAL GENETICS	2+1
STAT 567	REGRESSION ANALYSIS	1+1
STAT 568	STATISTICAL COMPUTING	1+1
STAT 569	TIME SERIES ANALYSIS	1+1
STAT 570	ACTUARIAL STATISTICS	2+0
STAT 571	BIOINFORMATICS	2+0
STAT 572	ECONOMETRICS	2+0
STAT 573	STATISTICAL QUALITY CONTROL	2+0
STAT 574	OPTIMIZATION TECHNIQUES	1+1
STAT 575	DEMOGRAPHY	2+0
STAT 576	STATISTICAL METHODS FOR LIFE SCIENCES	2+0
STAT 577	STATISTICAL ECOLOGY	2+0
STAT 591	MASTER'S SEMINAR	1+0
STAT 599	MASTER'S RESEARCH	10+0

NOTE:

1. STAT 551 and STAT 552 are supporting courses. These are compulsory for all the students of Statistics / Agricultural Statistics.
2. STAT 560 - STAT 569 are core courses to be taken by all the students of Statistics / Agricultural Statistics.
3. STAT 591 and STAT 599 are compulsory for all the students of Statistics / Agricultural Statistics.
4. A student has to take a minimum of 36 credits course work, excluding the supporting courses, seminar and research.

3. Ph. D. (Statistics / Agricultural Statistics)

STAT 601	ADVANCED STATISTICAL COMPUTING	2+1
STAT 602	SIMULATION TECHNIQUES	1+1
STAT 611	ADVANCED STATISTICAL METHODS	2+0
STAT 612	ADVANCED STATISTICAL INFERENCE	3+0
STAT 613	ADVANCED DESIGN OF EXPERIMENTS	2+0
STAT 614	ADVANCED SAMPLING TECHNIQUES	2+0
STAT 615	ADVANCED STATISTICAL GENETICS	2+0
STAT 616	STATISTICAL MODELING	1+1
STAT 617	ADVANCED TIME SERIES ANALYSIS	2+0
STAT 618	STOCHASTIC PROCESSES	2+0
STAT 619	SURVIVAL ANALYSIS	2+0
STAT 620	ADVANCED BIOINFORMATICS	2+0
STAT 621	ADVANCED ECONOMETRICS	2+0
STAT 651	RECENT ADVANCES IN THE FIELD OF SPECIALIZATION	1+0
STAT 691	DOCTORAL SEMINAR I	1+0
STAT 692	DOCTORAL SEMINAR II	1+0
STAT 699	DOCTORAL RESEARCH	45+0

NOTE:

1. STAT 601 and STAT 602 are supporting courses. These are compulsory for all the students of Statistics / Agricultural Statistics.
2. STAT 691, STAT 692, STAT 651 and STAT 699 are compulsory for all the students of Statistics / Agricultural Statistics.
3. A student has to take a minimum of 18 credits course work, excluding the supporting courses, seminar and research.
4. A student has to take two seminars.